AMENDMENTS TO CLAIMS

Please amend the claims of the above identified application, without prejudice or disclaimer, as follows:

39. (previously presented) A medical device comprising an elongate wire having a distal end section configured for delivery to and detachment at a target body location, said wire comprising a discontinuity located proximal to said distal end section, said discontinuity being configured to rupture when vibrational energy is applied to said wire.

40. (previously presented) The medical device of Claim 39 wherein said distal end section is configured to be placed into an aneurysm.

41. (previously presented) The medical device of Claim 39 wherein said discontinuity comprises a cut part way through said wire.

42. (previously presented) The medical device of Claim 41 wherein said discontinuity comprises a plurality of cuts part way through said wire, said device having a longitudinal axis and said cuts being arranged in a plurality of groups, each said group comprising at least one cut located at substantially the same location along said axis, said groups being spaced apart along said axis, and each said group being rotated at an angle around said axis from an axially adjacent said group.

43. (previously presented) The medical device of Claim 39 wherein said discontinuity comprises a reduced diameter section.

44. (previously presented) The medical device of Claim 39 wherein said discontinuity comprises a heat-treated section to weaken said wire.

45. (previously presented) The medical device of Claim 39 wherein said discontinuity comprises a chemically-treated section to weaken said wire.

46. (previously presented) The medical device of Claim 39 wherein said discontinuity comprises a chemically etched section.

47. (previously presented) The medical device of Claim 39 wherein said discontinuity comprises a hydrogen embrittled section.

48. (previously presented) The medical device of Claim 39 wherein said discontinuity comprises a hole extending through said wire.

49. (previously presented) The medical device of Claim 39 wherein said discontinuity comprises an abrupt mass of material attached to said wire.

50. (previously presented) The medical device of Claim 49 wherein said abrupt mass of material is in the shape of a coil.

51. (previously presented) The medical device of Claim 39 wherein said wire includes a first section extending from said proximal end to a terminal end, and wherein said distal end section is attached with a coupling to said terminal end, said coupling forming said discontinuity.

52. (previously presented) The medical device of Claim 51, said coupling comprising an adhesive joining said distal end section to said terminal end of said first section.

53. (previously presented) The medical device of Claim 52 wherein said adhesive is blood soluble.

54. (previously presented) The medical device of Claim 52 wherein said adhesive comprises sugar.

55. (previously presented) The medical device of Claim 52 wherein said adhesive forms a brittle joint.

56. (previously presented) The medical device of Claim 52 wherein said adhesive comprises a water-soluble glass adhesive.

57. (previously presented) The medical device of Claim 51, said coupling comprising solder joining said distal end section to said terminal end of said first section.

58. (previously presented) The medical device of Claim 52, said coupling comprising a welded joint joining said distal end section to said terminal end of said first section.

59. (previously presented) The medical device of Claim 39 wherein said distal end section further comprises a plurality of transverse cuts spaced apart longitudinally along said distal end section to enhance the lateral flexibility of said distal end section.

60. (previously presented) The medical device of Claim 59 having a longitudinal axis, said cuts being arranged in groups comprising at least two cuts located at substantially the same location along said axis, said groups being spaced apart along said axis, each said group being rotated at an angle from an axially adjacent said group.

61. (previously presented) The medical device of Claim 59, at least one of said transverse cuts having at least one dimension greater than the other said transverse cuts, said at least one of said transverse cuts forming said discontinuity.

62. (previously presented) The medical device of Claim 39, said distal end section substantially comprising nickel-titanium alloy.

63. (previously presented) The medical device of Claim 39, said wire proximal to said distal end section substantially comprising stainless steel.

64. (previously presented) The medical device of Claim 39 further comprising a vibrational energy source coupleable to said proximal end of said wire.

65. (previously presented) The medical device of Claim 39, said wire being tubular.

66. (previously presented) The medical device of Claim 39 further comprising a spectrum analyzer configured to detect rupture of said discontinuity.

67. (previously presented) The medical device of Claim 39 further comprising a coil.

68. (previously presented) The medical device of Claim 67 further comprising an adhesive securing said coil.

69. (previously presented) The medical device of Claim 39 further comprising a hydrophilic coating or lubricant disposed thereon.

70. (previously presented) The medical device of Claim 39, said distal end being configured to form a coil when unconstrained.

71. (previously presented) The medical device of Claim 39 having a plurality of spaced-apart discontinuities configured to sever when a different vibrational energy frequency is applied to said wire.

72. (previously presented) The medical device of Claim 39 further comprising a catheter extending at least to said discontinuity and proximal therefrom.

73. (previously presented) The medical device of Claim 72 at least part of said wire being solid and being located inside said catheter, said wire being connected to a slotted tubular member extending distal from said wire and distal from said catheter, at least part of said tubular member forming said distal end section.

74. (previously presented) The medical device of Claim 73 configured to deliver a fluid through said catheter, through at least some of said slots, and through at least part of said tubular member.

75. (previously presented) The medical device of Claim 73, said discontinuity comprising at least one slot formed in said tubular member.

76. (previously presented) A method of disposition of an elongate element at a target location in anatomy, the method comprising at least the steps of:

threading an elongate wire through the anatomy so that a distal end, forming an elongate element, is disposed at the target location, the distal end being configured to detach from the wire when vibrational energy is applied to the wire;

applying vibrational energy to the wire to cause the distal end thereof to detach at the target location, and

withdrawing the wire, leaving the distal end at the target location.

77. (previously presented) The method of claim 76, the threading being through a luminal passageway; and the vibrational energy being applied substantially proximal to the distal end.

78. (previously presented) The method of claim 77, the distal end being disposed to occlude an aneurysm.

79. (previously presented) A method of Claim 76, further comprising the step of measuring the resonant frequency of the wire and detecting the detachment of the distal end by detecting a change in the resonant frequency.

80. (previously presented) The method of claim 76, the vibrational energy being predominantly torsional.

81. (previously presented) The method of claim 76, the vibrational energy being predominantly axial.

82. (**amended**) The medical device of Claim 39 further comprising a[[A]] system ~~at least~~ for determining when detachment of ~~a detachable~~ the distal end section ~~of a medical device~~ has occurred, said system comprising:

a vibrational energy generator configured to deliver vibrational energy to the wire;

a spectrum analyzer configured to measure the vibration of the wire at at least one frequency; and

an indicator configured to generate a humanly discernable signal; ~~and~~

said system being configured to use the vibration of the wire to determine and communicate via said signal whether detachment of the ~~detachable~~ distal end section has occurred.

83. (**amended**) The medical device [[system]] of Claim 82 wherein said system is configured to determine a resonant frequency of the wire and determine whether detachment of the ~~detachable end~~ distal end section has occurred using said resonant frequency.

84. (**amended**) The medical device [[system]] of Claim 83, said indicator comprising a screen configured to display a frequency distribution plot.

85. (**amended**) The medical device [[system]] of Claim 82, said vibrational energy generator being configured to deliver vibrational energy to the wire sufficient to cause detachment of the ~~detachable end~~ distal end section.

86. (**amended**) The medical device [[system]] of Claim 82 wherein said system is configured to deliver vibrational energy of a selectable frequency.

87. (**amended**) The medical device [[system]] of Claim 86, said vibrational energy generator being configured to deliver vibrational energy to the wire sufficient to cause detachment of the ~~detachable end~~ distal end section, said system being configured to cause detachment at one of a plurality of different locations, which of said locations of detachment being determined by the frequency of the vibrational energy that is selected.

88. (**amended**) The medical device [[system]] of Claim ~~82 further comprising said wire~~ 39 further comprising a system configured to use the resonance frequency of the wire to determine whether detachment of the distal end section has occurred.

89. (**amended**) The medical device [[system]] of Claim 88, said wire being configured to occlude an aneurysm.